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COLMAN'S RURAL WORLD

LEVI CRUBBICK, EDITOR.

Published every Wednesday, in Chemical building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chalmers D. Colman, 430 Temple Court, New York City. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

While the RURAL WORLD is published at one dollar a year, it has temporarily allowed old subscribers to send actually NEW OR TRIAL subscribers with their own subscriptions at fifty cents a year, in order to largely increase the circulation and influence of the paper. This price is less than the cost of the white paper, presswork, folding, wrapping, mailing and prepaying the postage, saying nothing of any other of the large expenses of maintaining offices, paying salaries and conducting such a paper in a large city. Renewals, unless accompanied by one or more NEW subscribers must be at one dollar a year. All names are dropped as soon as subscriptions expire. The month named on the address tag, pasted on each issue, shows the month subscriptions expire, and renewals should be made two or three weeks before, so that names shall not drop out of list. It is gratifying to the proprietor to be able to state, in his half century's experience in conducting this paper, it has never enjoyed the patronage and prosperity it now does. Its circulation is increasing in a wonderful degree, and its advertising patrons, many of whom have used its columns for a quarter or a third of a century, are more than pleased with results. Let all our friends unite and press forward in extending its sphere of influence. It will do for others what it is doing for you, so get others to join the great RURAL WORLD army and receive the same benefit.

OLEOMARGARINE AT THE STATE UNIVERSITY.

Our Marion County, Mo., correspondent, "Cherry Dell," states in his letter that appears on this page, that oleomargarine is served on the State University Boarding Club tables. Does he know that this is the case? We should be very sorry to be assured that it is, and trust that he has been misinformed. It would certainly be a matter of deep regret to the people of the state who are opposed to fraud and law breaking to know that the University of the State of Missouri gave sanction and countenance to the use as an article of food of so disreputable a substance as oleomargarine. Admitting for the moment that oleomargarine is a wholesome article of food, the fact remains that it maintains its place in the market simply by deception and violation of law, and that ought to be enough to condemn its use. But we deny that oleomargarine is a worthy substitute for butter with respect to wholesomeness, and can hardly think that University authorities who should be informed on this point would fail to object to its use.

Should "Cherry Dell's" statement prove to be true, how will the dairymen of the state feel? After years of effort they have secured the passage of a bill which provides for the establishment, if Governor Dockery signs the bill, of a chair of Dairy Husbandry in the Agricultural College, a department of the State University. To be told that oleomargarine, the substance that threatens, by fraud and law breaking, to destroy the dairy industry, is used in the University Boarding Club, would be a vicious blow in the face.

We shall hope to hear from our correspondent that he was misinformed.

CANDOR IN ADVERTISING.

The RURAL WORLD published a communication recently which an advertiser construed as reflecting unfavorably on his goods, and in writing we suggested that in the interest of advertisers, such letters should not be published. In the communication referred to the writer gave no name by which any one could tell what advertiser was referred to, thus, as we thought, taking particular care not to work injury through our columns, excepting that the article tended to make readers more cautious about accepting fully all the statements made by advertisers.

The fact should not be overlooked by advertisers that a publication of the character of the RURAL WORLD is of value as an advertising medium because it is of value to its readers and is held in high esteem by them. Every one knows that every manufacturer of and dealer in an article of sale is very apt to regard his article the best of its class, and does not hesitate to say so in his advertisement—it is to be expected that he will—but if he is reasonable he will recognize

the fact that there is ground for differences of opinion, that all cannot see alike, and that instances of perfection attained are extremely rare. Is it the duty of a publisher to ignore this last fact and to publish only that of a commendatory character regarding the articles advertised in his paper? To do so is to ignore the interests of his readers, and to do this means a diminution of his power to serve the best interests of legitimate advertisers.

We do not look upon the advertising columns of a paper like the RURAL WORLD as merely a revenue-yielding feature. With a proper regard for the character of the advertisements accepted, this department can be an instructive to the general readers as any in the paper, and to the extent that readers can be made to appreciate this to that extent is the paper adding to its value as an advertising medium. But this calls for honesty and candor—"the truth, the whole truth and nothing but the truth" must be told if the highest good to reader, advertiser and publisher is to be attained.

AGRICULTURE AT THE WORLD'S FAIR.

The Louisiana Purchase, the territory acquired by President Jefferson for the United States from France in 1803, comprises at area of 1,037,735 square miles, divided into 14 states and territories. Within these states and territories there are 165,578,336 acres of land in cultivation, which are valued at \$3,193,461,299. The annual value of the farm products of the Louisiana Purchase is \$1,006,523,611, and of the mineral products \$259,906,128. The combined value of the manufactured and mineral products is \$1,266,241,729.

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We present these otherwise incomprehensible figures in this comparative way to emphasize the claim that agriculture has for recognition in the World's Fair that is to be held in St. Louis in 1903. Scarcely will any one deny the claim in the face of the bare figures presented, for do not they prove the truth of the assertion so often made that agriculture is the basis of the nation's prosperity and the people's welfare?

But conceding the fact, will it follow that agriculture will be accorded its just dues in the management of and arrangements for the Fair? Possibly not, for farmers as a class lack that aggressiveness which compels recognition. It is assumed that the men with the "pul," the politicians, will be the ones who will be given preference with respect to appointments, and that as a consequence of this, concentrated capital invested in manufacturing and in the great market centers will have more consideration in the arrangements than will the vastly greater amount invested in agriculture, but which is widely scattered.

But we trust that the governors of the various states of the Louisiana Purchase and of the Union will take a statesmanlike view of the matter and see to it that agriculture is properly represented on the days of the "Wild and woolly west" have passed, and now the work of developing and bringing forth the wealth of the fertile soil, the mines, the grazing land, and the timber, for the benefit of ourselves individually, and the public at large, is a work that should interest every man that is public spirited, and who has any desire to be a maker of history for the coming generation. Idaho is an empire in itself. It has the riches, and can produce everything that a people would need to complete their happiness and comfort—mountains of minerals, from iron to gold; thousands of acres of the finest timber, miles upon miles of the richest grazing lands; valley after valley of the most fertile soil that will grow in a temperate climate, watered by never-failing mountain streams, which furnish all necessary water for irrigation purposes, and power enough to run the mills of the entire country.

The care with which the sage brush land of Idaho can be transformed into a bower of trees, flowers and shrubbery, and a home beautified, may be imagined from the accompanying picture.

On the first day of April, 1896, this house stood on bare ground, surrounded by nothing in the way of vines, grass or shrubbery, except a few straggling sage brush. The owner had the ground plowed, leveled and seeded to blue grass and clover, and began the planting of trees, etc. This picture was taken in July, 1900—16 months from the time the first work was done. Can anyone beat it?

The productive possibilities of this soil, brought out by irrigation and intelligent cultivation, can hardly be realized by people acquainted only with the soil of the eastern country, nor can they comprehend the small area of farm land necessary in this country to meet the needs of a family for comfort and happiness.

Anything can be grown here that will grow in a temperate climate. All products yield abundantly. Plenty of water for irrigation, fertile soil, good climate, where a man can work out of doors all winter without any discomfort. All that a farmer needs for his work is here. A good demand for fruits, that fungous disease must be fought in line with the origin of the disease, while insect enemies must be routed in their breeding camps and according to manner of feeding. Yes, and much of what farmers call practical farming, but which has been evolved along lines of scientific investigation, is the real basis of the things which the farmer is apt to consider very commonplace must be acquired, that the soil must be studied, that plants and plant food are cold business factors, that animals and food rations must be the known members of an equation, if the unknown member will be profit on sale day, that manure waste too often represents what ought to be farm food, that fungous disease must be fought in line with the origin of the disease, while insect enemies must be routed in their breeding camps and according to manner of feeding. Yes, and much of what farmers call practical farming, but which has been evolved along lines of scientific investigation, is the real basis of my special case. This is the rock upon which much of the practical information developed by our Experiment Station is wrecked.

The very fact that while the underlying principles are as fixed as the laws of the Medes and Persians, yet the application of them is as flexible as the conditions of the numberless farms of our broad land are varied; and this should prove to the farmer that they not only suit the other fellow's conditions, but his own as well. At times farmers protest that the directions given are not suited

to their immediate needs. This is just as it should be, and what will make the difference between the thinking and the unthinking farmer. The principles must be studied and then made to suit one's special case.

An estimate of the value of knowing agricultural principles and being able to adapt them to one's situation is found in the practice of Mr. Dreiser of New York, the owner of one of the largest poultry farms in the country. He has studied the facts in connection with the moulting of chickens, the conditions necessary to compel the shedding of feathers, the foods that will induce growth of new plumage, and has thus learned how to compel his hens to moult in August, and to have them all feathered and ready for egg production for his high priced city customers when they return from fashionable summer resorts. Mr. Dreiser has simply taken cold scientific facts and made them suit his needs and thus make him dollars. His hens are made to loaf when eggs are low in price, and to work when the market price is paying. What the other fellow can do, so can you.

FROM SOUTHERN IDAHO.

Editor RURAL WORLD: Thinking that some of your readers would like to hear from this part of the western country, and to know what their western brothers are doing, I make bold to write this letter.

The days of the "Wild and woolly west" have passed, and now the work of developing and bringing forth the wealth of the fertile soil, the mines, the grazing land, and the timber, for the benefit of ourselves individually, and the public at large, is a work that should interest every man that is public spirited, and who has any desire to be a maker of history for the coming generation. Idaho is an empire in itself. It has the riches, and can produce everything that a people would need to complete their happiness and comfort—mountains of minerals, from iron to gold; thousands of acres of the finest timber, miles upon miles of the richest grazing lands; valley after valley of the most fertile soil that will grow in a temperate climate, watered by never-failing mountain streams, which furnish all necessary water for irrigation purposes, and power enough to run the mills of the entire country.

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to the world, for here the crop is more certain. The soil contains the elements necessary to produce size and quality. It does not take so long to grow an orchard. The trees are prolific bearers, and the fruit is very fine in appearance as well as in quality.

Last year ripe prunes shipped from Southern Idaho to London, sold for 12 cents per pound.

Few localities in the world can grow perfect prunes. This section is one of the few. Our prunes grow larger, are of better quality and flavor, contain more sugar, and yield more to the tree than elsewhere. Even Oregon, Washington or California cannot equal the product of this section.

Pears are worthy of much consideration, and are very profitable to the Southern Idaho grower. They bear at a young age, produce abundantly and there is always a good demand for this fruit. The winter Nellis is a pear much sought after by the Eastern dealer. It keeps until March of the following year.

The Bartlett grows here is very large, fine in flavor and appearance. Other varieties, both fall and winter, are equally profitable to the Idaho grower.

Peaches, apricots, nectarines, quinces, cherries, etc., need but passing notice, for in quality, flavor and abundance they rank closely with the apple, prune and pear. Small fruits such as strawberries, blackberries, dewberries, etc., yield abundantly.

Poultry and bee keeping are engaged in with very satisfactory results. The climate being dry, there is no tendency to disease to carry off the fowls. There is always a good market for chickens.

Bee have a long season in which to work and the winters are not cold enough to make housing necessary. The extensive fields of alfalfa, acres of fruit and fruit blossoms, together with the abundance of wild flowers furnish the best of bee pasture and no wet weather in spring or summer. This is an ideal location for poultry and bee keeping.

The United States Government should reclaim all the sage brush land by irrigation, and thus converting it into a "Land of Promise."

CRAWFORD E. WHITE.

Editor RURAL WORLD: On account of my inexperience in farming, I have been somewhat diffident about writing for publication, but having been requested so kindly to do so, will add my little mite to the helpful columns of the RURAL WORLD. I take great pleasure in reading the letters contributed by your correspondents.

I cannot say that I have made any signal success yet as a farmer, but it is certainly my ambition and expectation not to form part of the rear guard of the army of agriculturists in the new order of events in this twentieth century. As a boy I learned to hold a plow and use a hoe, and, by the way, not everybody knows how to cut weeds with a hoe.

I have had only five years actual experience in farming. As this is a gravelly, sandy, rocky soil, of course, we use chilled plows and what I know in regard to running a plow does not apply to a steel plow. I found that if I did not use a "hitch" of proper length, the point would wear off on the under side till it would have no "suck" and would not work. I cannot endure a piece of slovenly "breaking," and while I do not cover the ground that some do, yet one will travel away before finding better work than mine. I found that a long hitch makes a plow run better in rocks. I never used a gauge wheel until a year ago, but would not like to be without one now. It makes a plow run so much steadier and takes off half the work. Of course, in "new" ground I take it off, as it is in the way, and then there is danger of breaking the castings.

It has been my constant aim to increase the depth of soil in all the fields to ten inches, which is about as deep as my plow will well run. Of course, it is harder on my team to plow eight and ten inches deep than four or five, as is commonly done in this country; but I believe it pays, and I am not very fond of doing any work that I don't think will pay. My idea is that a soil stirred ten inches deep will contain twice as much available plant food as one plowed only five inches deep, and will be capable of an increase of 50 per cent in yield over the shallow soil.

Grain of all kind yields abundantly. Wheat from 25 to 40 bushels per acre, barley and rye from 30 to 60 bushels, oats from 60 to 90 bushels, and corn from 40 to 75 bushels. Hay will produce from five to eight tons per acre; alfalfa and clover are cut three times during the season.

Timothy can be cut twice. Hay sells readily from \$5 to \$8 per ton in the stack. Blue grass, red top, etc., do remarkably well and make fine pasture.

Mr. C. S. Fosseman of Weiser, Idaho, was awarded a silver medal at the Paris Exposition (1900) on his exhibit of apples, pears and peaches, with the following remarks by the Horticultural expert, Paris Commission:

"Your collection, as well as all of the Idaho fruit, is attracting a great deal of attention. There is none better grown anywhere."

Apples, particularly the best winter varieties, are a source of great profit to the grower. The Idaho apple grower can com-

tain any prominence here as a crop, and many can be found who have not yet, raised them. People are becoming informed pretty well now as to the advantages of cow peas and they are beginning to be extensively planted. One great advantage they possess is the ability to make a crop on land too thin for anything else, and very little cultivated land here will secure a satisfactory stand of red clover, so that cow peas are a great boon to the farmers here.

I have not cared to try to raise corn to sell and have learned to confine my corn "patches" to the best ground on the place. I will have a total of ten or eleven acres this year, but I expect that to make enough for my use. Beside raising enough wheat for bread, I will devote the remaining acreage to forage crops and annual pasture, as I have no permanent pasture. Too many try to raise corn year after year on the same ground, and the consequence is it gets so it will raise nothing.

Crab grass is a troublesome crop at times, and an old resident told me how to get rid of it. He said after clearing land to put it in corn for three years, then grow nothing but corn for 40 years, and crab grass would not bother. He said he had tried it and knew. My practice has been to grow corn only about twice in succession and then change to some other crop.

I shall experiment this year with oats as a hay crop, cutting them just when they commence to head well. If the result pleases me I shall put up quite a little "oat hay" till I get enough timothy and red clover to supply my needs. I am writing too much of my affairs, so will quit.

THOS. E. MOORE.
Washington, Co., Ark.

COW PEAS.

Editor RURAL WORLD: I have been raising and feeding stock peas for several years, and the more I become acquainted with them the better I like them. They are, indeed, a very profitable crop, if one wants to put them on the market. The peas bring a good price if held until sowing time, and there is usually a good demand for the hay. A great deal of it is baled after it is threshed. The majority of the farmers say they would rather have it to feed after it has been threshed, claiming that stock eat it more readily; and it is much easier handled about the barn and mangers. Stock eat it with great relish, and milch cows, when fed on it, give a good return in the milk flow and yield of butter.

One year I had a pea patch and corn field in the same field. I cut the peas for hay, and after I gathered the corn turned the cows in this combination field. I was very much surprised to see how they browsed on this pea stubble, in fact, they gave the stalk field a wide berth until almost all the pea stubble had vanished. The cow pea is not only a good paying and feeding crop, but is a good renovator, and puts new life into the soil. We think it is next to clover in this respect. In fact it is superior to clover on some soils, viz., on land that is too poor to grow clover peas will take hold and have a mechanical effect on the soil, so other crops may follow.

Pearson's and cherry Dell's editor in the issue of March 27 on "Time," is timely and to the point. There is no class of laborers to whom time or a day's work is of more value than the farmer, and no class of laborers squander so much time recklessly as they. The farmer never knows to a certainty the value, in dollars and cents, of a day's work. Not so with the day laborer, the clerk, mechanic or artisan. Their day's work is measured. They know that if they work they earn so much money; if they do not work they lose so much money. The farmer never knows to a certainty the value, in dollars and cents, of a day's work, or no work, half a day or a day must be lost. So the day's work is measured.

Thirty years ago I got a few lessons along this line that I have not forgotten. I was a member of a grange and being the chief moulder for a time, it was very necessary (?) that I attend every meeting. So about twice a month, work or no work, half a day or a day must be lost from the farm. As I did all my own work, everything stopped when I did, and I found at the end of the season I had lost heavily because of the neglect.

Farmer friends, let me insist upon you giving more attention to these crops

The Dairy.

THE GROUT oleomargarine bill, after having passed the House by a large majority, died in the Senate by reason of not coming to a vote. There was a clear majority of the Senate in its favor, but every time it came up it was pushed aside by other business and the term of Congress expired by constitutional limitation without final action on the bill. It is confidently expected that it will be enacted next winter, but it will have to go through the regular process from the beginning.

THE DILUTION SEPARATORS.

THE RURAL WORLD has received recently a number of letters from readers asking our opinion regarding the so-called tin-can or dilution separators. Our opinion of them will be quite clearly expressed by stating that the RURAL WORLD declines to insert advertisements of these contrivances in its columns. Advertising contracts from three different manufacturers of dilution separators have recently been declined by this paper, because we do not regard these so-called separators as possessing sufficient merit to make it worth while for our readers to buy them.

The method by which they are operated—diluting the fresh, warm milk with cold water—has been carefully investigated and found to be inefficient as a means of getting a complete separation of cream, to have a bad effect on the cream and butter produced, and to make the skim milk practically worthless for calf feeding, because of the added water. Equally as good, and in some respects better, results can be obtained by any other method of deep settling in cold water. In our own dairy work we had our dinner make us a set of cans eight inches in diameter and 20 inches deep, these to be filled with milk fresh from the cow and as quickly as possible set in cold water. No dilution separator made will produce better results than will this method with respect to separation of cream, and the skim milk will not be rendered worthless by being diluted one-half with water. For ordinary home use it is better and cheaper than a dilution separator. For a business of sufficient moment to be called dairying, a centrifugal separator, such as we are advertising, should be obtained.

BUTTER SLOW IN COMING.

FLOYD R. HOWELL, of Shelby Co., Mo., a little boy 11 years old, wrote us recently saying that he had the churning to do and asked us to tell him what was the cause of the butter being so long in coming. It took two to seven hours of churning to bring the butter. The milk, he says, is from two Jersey cows, fed on bran and corn fodder twice a day, and salted once a week.

We know from experience how to sympathize with Floyd, for as a boy we had the churning to do, and have gone through the experience of churning hour after hour until arms seemed about ready to fall off and back almost broken in two. The most common cause of slow churning is in having the cream too cold. No one should attempt to make butter without being provided with a dairy thermometer with which to test the temperature of the cream. One can be bought for 25 cents.

The colder the cream the longer it will take to churn. In creameries where the churn is worked by a steam engine the practice is to have the cream comparatively cold—54 degrees F.—because a better quality of butter is made than when the cream is warmer. In the creamery it is expected that the churn will run about an hour. For hand churning at home this is too long; so one must have the cream warmer—say 55 degrees in warm and 60 in cold weather. These temperatures must, however, be modified to suit other conditions. In a cold room the cream must be warmer than otherwise. Cream from different cows and different breeds varies with respect to the churning temperature. Jersey cream, as a rule, requires a comparatively high temperature. The character of the feed will modify the proper churning temperature. It is said that excessive feeding of cotton seed in the South makes a very high churning temperature necessary—70 to 72 degrees being not uncommon. Sweet cream must be churned at a lower temperature than that well ripened, and a rich, heavy cream lower than a thin cream, other things being equal. Then the construction of the churn, speed and amount of cream are all factors in determining the churning temperature. Another important factor is the length of time the cow has been in milk. Cream from a farrow cow is harder to churn than that from a fresh one, and must have a higher temperature.

Thus it is seen how important it is to know the temperature of the cream when it is put into the churn, and one must know many things about the cream to be able to intelligently modify the temperature to suit the conditions. It is too much for an eleven-year-old boy to master easily, but his father or mother will probably help him in the matter.

We will be glad to have Floyd write us again and tell us more about his cows, their feed and water, how the milk is handled and skimmed, kind of churn used and other facts that may occur to him.

Hood's Sarsaparilla

Has won success far beyond the effect of advertising only.

The true secret of its wonderful popularity is explained entirely and only, by its unsurpassable Merit.

Based upon a prescription which cured people considered incurable, which accomplished wonders astonishing to the medical profession,

Hood's Sarsaparilla

Included the concentrated values of the best-known vegetable remedies, united by such an original and peculiar combination, proportion and process as to secure curative power peculiar to itself.

Its cures of mild and extreme cases of scrofula, eczema, psoriasis, and every kind and degree of humor, as well as catarrh and rheumatism—prove

Hood's Sarsaparilla

the best blood purifier ever produced.

Its cures of dyspepsia, biliousness, nervousness, loss of appetite and that tired feeling make it the greatest stomach tonic, nerve-builder and strength-restorer the world has ever known.

Hood's Sarsaparilla

Is a thoroughly good medicine. Begin to take it TODAY. Get HOOD'S.

FARM CREAM SEPARATORS.

Rural World Readers Are Interested in the Subject of Using Cream Separators on the Farm.

On invitation of Secretary F. D. Coburn, of the Kansas State Board of Agriculture, an address was delivered at the board's recent annual meeting by Mr. Geo. Morgan, a long-time, observant dairy and creamery man, on that subject. Mr. Morgan is entirely convinced of the desirability of the milk-producer having his separating done at home rather than at the factory or station, and some of his observations are as follows:

The value of the farm separator to the private dairyman has already passed the experimental stage. The evidence of all who have made a careful, intelligent comparison between the gravity system and the modern cream separator is practically a unit in favor of the latter for the private dairyman. The question as to its advantages in localities where creameries are established is one upon which there is much difference of opinion. The most serious problem confronting creameries at this time is that of operating expenses. This applies alike to creamery and patron, whether under co-operative or proprietary management, it makes but little difference. All are vitally interested in the expense account. If the eastern creamery enjoys a patronage of from 10,000 to 30,000 pounds of milk per day, while many of our creameries are running along at from 3,000 to 5,000 pounds, then we have lost much of the advantages we possess on account of our cheaper dairy foods in the increased cost of operating. Evidently, as long as present conditions exist, some system of centralization is inevitable.

The farm separator, we think, will assist greatly in solving this problem. It means a minimum of labor with a maximum of profit. The product is carried in condensed form from the patron to the creamery. In our state, dairying is incidental to beef and pork production. The conditions at times are peculiar and perplexing. The farmer has a way of putting the creamery on half rations of milk. When times and crops are good, it is no uncommon thing to find him at milking time quietly sitting on the fence with a complacent smile upon his countenance, as he watches the calf do the milking, but when reverses come, the cow and the creamery are counted amongst his best friends and assets. Where large investments are made in skimming stations and these spells strike the patrons, it often proves very disastrous to the management, as they feel compelled to keep running, though the patronage has gone below any chance of profit. We feel safe in saying that fully one-third of the skimming stations in this state from October to May do not pay running expenses. It is in these localities where the farm separator will prove of the greatest benefit. If the patronage is light then the expense is correspondingly light. We place the average cost of a skimming station at \$1,000 and the average cost of operating at \$600 per annum. This, of course, will include interest, taxes, insurance, breakage, wear and tear, labor and fuel. Many stations now running in Kansas do not average over 1,500 pounds of milk every other day during the fall and winter. Forty cows at 20 pounds of milk per day per cow will produce 1,600 pounds of milk in two days. Here is an investment, then, of \$1,000 with \$60 per month expense to handle the milk of 40 cows.

At points where the patronage is liberal any radical change would not be advisable. It will to a great extent work its own way. But at these weaker, non-paying stations much good can be accomplished by the use of the farm separator, especially in territory where the distance is great to haul milk. True, to carry out this plan the farmer must make an investment for which he is amply compensated in the increased value of the skim milk and the convenience of having it on the farm morning and evening to be fed while warm, sweet and fresh and in the best possible condition to be fed to the young animal. The milk patron often suffers a severe loss on account of his Sunday's milk during the heated term. He also loses again by feeding new milk to the calf for six or eight weeks on account of the danger incurred in feeding the creamery milk. Where milk is fed from the farm separator by careful management and the use of Kaffir corn-meal, the calf can be put upon the skimmed milk at 15 days old. It has been our experience that the patrons with from 10 to 15 cows save enough in one year to pay for a \$100 machine.

ACID TESTS FOR CREAM.

A Paper by E. W. Curtis, Council Grove, Kan., Read at the 11th Annual Convention of the Missouri Dairy Association.

The object of the acidity test for showing the amount of acid in cream or milk is comparatively new, although the process of testing for acid has been known among chemists many years. Until the last year or two very little attention has been paid to the amount of acid in cream as an index of the quality of said cream.

Our dairy schools and best buttermakers, however, have given late of the matter much attention, and to-day many of our best equipped dairies and creameries have them in use. The annual report of the Dairy Commissioner of Iowa, published recently, states that at the present time 10 of about 950 creameries in that state are using the acidity test.

It may be that some of my hearers have not studied the causes that have led to the adoption of the acid test for cream and for such I will discuss them briefly, asking meanwhile the indulgence of those who are using the test and have given the matter some thought.

Any person who invents some system or instrument whereby the old "rule of thumb" or guesswork is superseded is entitled to credit as a public benefactor. Thus, in dairy lines the inventor of the thermometer as a measure of temperature was a great man and a benefactor. The inventor of scales of many centuries ago and to-day unknown has provided a just arbitrate between buyer and seller of all commodities and from which there is no appeal (unless it be to another pair of scales). Then, in later days, in 1889, Dr. S. H. Babcock of the University of Wisconsin gave to the world a free standard of measure for buyer and seller of milk and cream, and dairymen everywhere in the world to-day love to honor him, the inventor of the Babcock tester, as a scientific and as a true and generous man.

The acidity test today follows these great inventions and, in my opinion, is as worthy of adoption. But why adopt it? What is it? And what for? My unsupported opinion is worth little and the questions crowd us for answer.

FEEDING SKIM MILK TO CALVES.

The Nebraska experiment station has just issued Bulletin No. 65, which treats of the subject of raising calves. In the experiment comparisons are made between raising calves on separator milk and allowing them to run with their dams. Residents of Nebraska wishing the bulletin may obtain it free of cost by writing to the agricultural experiment station, Lincoln, Neb.

Following is a digest of the bulletin:

This experiment is an attempt to show the profit of raising beef calves on separator milk as compared with that derived from allowing them to suck their dams.

To start this experiment western grade Hereford and Shorthorn cows were selected, the aim being to secure individuals uniform in respect to date of calving, type and milking tendency.

The cows were divided into two lots, lot 1 being taken from their calves, while lot 2 were allowed to run with them.

The animals in both lots were weighed once a week and all rations carefully measured and recorded.

The calves fed by hand made good gains during the first five months, but not equal to the lot running with the cows.

When the two lots were put on feed after the test there was not much difference in the condition or form, but the sucking calves were smoother and better fleshed.

After weaning the hand-fed calves had the advantage, being accustomed to rations of dry forage and grain. At the end of the year there was practically no difference either in appearance or weight between the two lots.

To find the difference in the cost of raising the two lots all food was charged to both cows and calves at market price.

In this test it was found that a skim milk calf could be raised to six months old at a cost of about \$9 for all food consumed.

Labor was not taken into consideration owing to the great difficulty in finding a fair basis.

The cows used in the experiment were more inclined toward beef than milk production, but still they averaged 3,992 pounds of milk and 168 pounds of butter fat during the milking period. This amount of butter fat would make 184 pounds of butter, which would be the amount charged to each sucking calf.

As to the quality of the two lots, at the age of 14 months it was quite impossible to detect any difference between the sucking and skim milk calves.

WHITE SCOURS IN CALVES.

EDITOR RURAL WORLD: The article in a late issue of the RURAL WORLD on calf cholera, from the Nebraska State Veterinarian, gives an exact description of the disease known in Kansas and S. W. Missouri as white scour. The veterinarian is right in saying it is a fatal disease, but wrong in saying there is no remedy after the disease has developed.

The preventive method he advises is good, but where is the farmer who can or will carry it out?

The following remedy, if used before the calf is dying, will effect a complete cure:

One oz. of magnesia, one oz. bismuth, 2 oz. kino.

Mix and give a heaping teaspoonful in a little milk and repeat in two or three hours. The third dose usually gives relief, but in extreme cases use it at irregular intervals for several days.

This recipe can be filled at any drug store for about 30 cents. Used in time, and even if it causes the loss of sleep, I guarantee a cure. I have had some calves to be troubled with bloody flux after getting over the scour. In these cases I have found the best remedy to be a tablespoonful of castor oil half a teaspoonful of laudanum and half teaspoonful of turpentine. CHAS. W. KINLEY.

Miami Co., Kan.

A CREAMERY FOR SALISBURY.

By the Salisbury, Mo., Press-Spectator we learn that the people of that community are considering the feasibility of establishing a creamery. Mr. Miller, the creamery man at Macon, Mo., was in Salisbury recently by appointment to advise the farmers regarding the matter. In the course of his remarks Mr. Miller read the following from a recent issue of a South Dakota paper:

"To-day the patrons of the Champeny creamery drew their checks for their June butter, for which 150 a pound was paid, says the Mitchell, S. D., Republican. The price was very good considering the eastern market. During that month Mr. Rutherford stated that over 400,000 pounds of milk were delivered at the creamery and the skimming station. Some of the farmers who are patronizing the creamery drew some large checks for their June butter, Charles Borenson, who lives south of town, standing at the head of the list with a check for \$10, and several others went over the \$100 mark. The total amount of money paid out to farmers was about \$3,600. The men who are patronizing the creamery are the ones who best understand its benefits and would not under any consideration see it abandoned from the business of this county. It brings in the cash check every month of the year and goes a long way toward the monthly expenses and adding to the farm machinery. The creamery is one of the permanent institutions of Davidson county and we hope

to see it patronized even more liberally than it now is."

The "Press-Spectator" says the outlook for a creamery at Salisbury is encouraging.

We will simply add, the people of Salisbury can't encourage a more worthy enterprise.

A MILK CONDENSARY.

We are expecting to secure at our county seat, Elkhorn, the location of a plant of the Helvetia Milk Condensing Company of Highland, Illinois.

The plant must be assured 10,000 lbs. of milk per day to begin with and will use all that can be supplied.

A. D. McCALLEN.

M. E. Moore, Cameron, Mo., writes: Have just made some sales of heifers to my Shadybrook Herd. One of them was to Mrs. K. M. Currier of Canaan, N. H., who bought Kroonite Cattle, Methchil, who show heifers which as a calf won first and sweepstakes at St. Louis. Mrs. Currier writes: "Carrollton arrived in fine condition. I am very much pleased with her and find all I expected from your description." Mr. Robert Ralston, Esq., of Effingham, Ill., came here and selected four fine heifers for foundation stock of a herd.

They are all well bred, combining the largest butter records. Mr. Ralston had previously purchased of me a Bonita bull that will head the herd. Capt. E. W. Stevens of Sedalia has purchased of me two heifers, Carlotta, Lady Nederland and Josephine Mechthilde, which go to displace two Jerseys. To Hal G. Stevens, Decatur, Ill., I have sold a daughter of

Maryke 3d's Gerben, the great show cow that won the butter test at St. Louis in 1896, where she made in public 2 pounds 4 ounces of butter in 24 hours. To the Missouri State Lunatic Asylum No. 1 I have sold my bull, Artis Artis. Artis won first at the State Fair and second at the State Fair at Lincoln, Neb. I have sold to Asylums Nos. 2 and 3 their Holstein cattle.

MUNICIPAL MILK SHOPS.—The corporation of Liverpool, England, has opened depots for the sale of milk scientifically "humanized" for consumption by infants. These stores are situated in various parts of the city and are under the control of the chief medical officer. The instructions for the guidance of the customers are explicit and must be followed closely.

The price for a week's supply for an infant is about 2s; for a day's 1s. This is the beginning of the dream of Bellamy when all necessities will be furnished by the government.

We know you won't buy it, until you know something about it. The best way to get you to know how good it is, is to let you try it. That's what we do. Send for "Health" booklet, and we will send you a free sample package, that you may try it yourself. We know you will always keep it in the house, if you once try it. What fairer offer could we make?

At all Drugists—10 and 25 cents.

Handsome Stick Pin FREE!

MODERN REMEDY COMPANY, KEWANEE, ILLINOIS.

[This company will do exactly as it promises.—Editors.]

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Pittsburgh.

BEYER-BAUMAN

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Pittsburgh.

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Pittsburgh.

AMER. & BRIT. CO.

CINCINNATI.

ECSTELL

CINCINNATI.

ATLANTIC

CINCINNATI.

HEADLEY

</div

Horticulture.

IMPORTANT INSECTICIDES.

"Farmers' Bulletin No. 19," published by the U. S. Department of Agriculture at Washington, D. C., gives full directions for the preparation and use of all the important insecticides. Our readers who want to know how to successfully combat insect enemies should send for a copy of the bulletin. It is free for the asking. Address U. S. Department of Agriculture, Washington, D. C., and ask for "Farmers' Bulletin No. 19, Important Insecticides."

HORTICULTURAL TALKS.

TYING UP GRAPE VINES.—I find binder twine an excellent article for tying the old wood to the wires; thin, pliable wire is still better, as it will not give insects any chance to harbor under it. In going over my vines I find many wires hanging on that will answer for this year's fastenings. Don't twist the wire too tight or it may cut in when the buds expand and new growth is made; but even this matters but little, as most of such old canes will be cut away anyhow at the next pruning. For tying the young canes of this year's growth, soft corn husk strips are good. Narrow strips of old muslin or calico answer excellently for this purpose. All the old, loose bark should be removed and burned. The vines should be sprayed before the new growth commences. Spray the posts also, to destroy future spores that may have settled in the rough places.

MELON SEEDS.—At the time is near at hand when melon seeds will be planted, I am prepared to send out fresh seed of the Eureka watermelon and Emerald Gem cantaloupe, in packets containing seed enough to supply any family. Any subscriber to the RURAL WORLD that sends me an envelope stamped and directed, with a 2c stamp inclosed, will be sent a packet of either, and for 2 stamps a packet of each.

LAYERING GRAPE VINES OF THE TENDER VARIETIES.—Make a trench from the old vine as long as the cane you wish to lay in it—six feet is long enough and five inches is deep enough. Lay the vine in it and peg it fast to the bottom. If it is a short jointed variety, cut out every other eye and make a cut under the remaining eyes about half way through from the butt end of the vine. Where this is cut out, the roots will emit first and thus treated good plants are more sure to result. When the shoots have grown six inches high, pinch off the two lower leaves and fill in a few inches of earth, pressing it firmly. When a foot high fill up level and give each shoot a stake to which the eye is pointing.

RAILROAD ACCOMMODATIONS.—What are we to do? Ten days ago I sent a valuable box of plants to Kansas City. After one week the consignee wrote me that it had not arrived. To-day I got a receipt for its delivery at the next station. Here there is no office, so we have just to hand the goods to the conductor of the local freight. One of the agents now sends word that when an article is transferred from one road to another, some refuse to forward it unless the freight is paid. How can I tell what the freight will be? Last year I lost a shipment worth \$30 through the carelessness of an agent; as I don't know his whereabouts I have no chance for redress. I have told them that I am responsible for the freight on anything I ship. With expressmen I have no trouble on that account. The railroad and express companies hold us responsible, but there seems to be none on the other side.

Bluffton, Mo. —SAMUEL MILLER.

OUR FRUIT GARDEN.

EDITOR RURAL WORLD: While the gude mon and his assistants are busy enlarging our fields and getting ready for the planting thereof, little Helen and I have been filling in the waste places and "improving" too.

One of the features of Sunny Slope farm was an inclosure said to be a fruit garden. The place had grown up to tall weeds which in July the gude mon turned under with the plow, and later, after putting on it a lot of stable manure, gave it a finer plowing. The ground is on a northern slope, quite rocky, new ground. A goodly lot of the rocks had been picked off, but there are quite a plenty left on the ground. There is one row of Concord grapes, just commencing to bear; another row, Niagara, and several more rows of quite small grape plants, the name of which we do not know. Last fall we broke up a strip south of the grape vines and set out four rows of strawberries with plants we brought from the city with us, and they are doing well, having been mulched with straw in January. The old bed in the garden had been killed out by weeds and grass. At the north end of the lot was a row of wild gooseberries, a very few huckleberry plants and part of a row of blackberries—all showing the effects of having had to "shift for themselves" last year.

This spring a florist and seedsman in Pennsylvania, from whom I have had many plants before, sent me a lot of fine plants and again the gude mon went into the garden with the "double shovel," and after a good plowing laid off the rows and Helen and I "did the rest," which consisted of setting out 21 plants of blackberries, Ohmer, Erie, Taylor and Ancient Britton; 47 raspberry plants—Marlboro, Cuthbert, Columbian, Golden Queen, Gregg, Hibborn and Kansas; 14 dewberries, Lucretia. And now we can scarcely wait to see if they will grow. There is still room for quite a lot more plants. The old strawberry bed is to be plowed up and again manured, and I think I shall try an asparagus bed there as a friend is kind enough to send me 50 plants of the Palmetto variety. Neither Helen nor I can dig deep or plow, but the gude mon will plow it as deeply as possible and there is a big pile of old manure in one of the fence corners, and we have a shovel and a wheelbarrow. We are going to make an asparagus bed ourselves.

The greatest drawback we have encountered is the enforced absence of the gude mon, spring and fall, but we hope, now that St. Louis is a world's fair city, to dispose of our holdings there and "live together" again.

The orchard has quite a lot of vacancies throughout its extent and the gude mon has received a bale of trees from the "old reliable" Stark Bros. nurseries, and we know they will be fine trees!

HELEN WATTS MCVEY.

Wright Co., Mo.

Mothers will find "Mrs. Winona's Soothing Syrup" the best Remedy for Children's Teething.

ODDS AND ENDS FROM MAPLE GROVE.

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Best steel wire by far—strong, strong, strong, efficient, durable. Local agents everywhere. If no agent in your town write to the makers.

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Live Stock.

April 10.—Boone Co. Shorthorn Breeders' Association, Columbia, Mo.
April 12.—N. H. Gentry and June K. King, Shorthorn cattle, Kansas City, Mo.
April 12 and 13.—Two days combination sale; 100 high-class Shorthorns, from herds of June K. King, N. H. Gentry, Gentry Bros. and W. F. Harned.
April 12.—S. B. Biggs, Mt. Sterling, Ill.
April 12.—C. C. Bigles & Son, Hartwick, Iowa.
April 12.—Boone County Shorthorn Breeders' Association, Columbia, Mo.
May 1-3.—E. B. Jones & Co., and S. E. Frather & Son, at Springfield, Ill.
HEREFORDS.
May 21 and 22.—C. A. Johnson, Peoria, Ill.; S. E. Webster, Wabash, Ind.; and others, at Chicago, Ill.
ABERDEEN ANGUS.
March 14.—H. M. Gittings, Disc., Ill.
March 20-21.—J. C. Mattinson, Mattinson Scales, Kansas City, Mo.
March 29-30.—Haley Bros., Harris, Mo., and others, at Kansas City, Mo.
BEGINNING A HERD OF PURE BREDS.
One reason that there are not more herds of pure bred and high grade cattle is that farmers and stock raisers take note of the well established herds of their state or section of the country and compare them with the scrub stock in their own yards, and conclude that they haven't the money to put into such a herd, which means also the expense of fine barns, herd keeper, etc., in addition to the large sum needed to purchase the herd. The result is that in the majority of cases the scrub herd is continued, and with the poor herd discontinued with the business; for the price received for the stock raised even when care is used in growing and feeding it, falls far below the market reports of prices obtained for good high-grade or pure breeds.

The great difficulty is in the view point taken—that of looking at the finished herds of reputation, rather than at the beginnings of these herds. Many of them in their incipiency were, perhaps, started with a pure bred sire, the owners having followed the axiomatic principle that the bull is half the herd; and later a pure bred cow or two; and the herd as now seen has been the result of years of thoughtful study and careful breeding and large expenditures of brains, time and money.

What one man has done another may do, if the same animus actuates him; and young farmers have the same, if not better, opportunities for growing fine herds of cattle than was offered a half or even a quarter of a century ago. Many of the sires and dams forming the nucleus of these herds, now so famed, had to be secured at distant points, if they were not imported, and large expense for transportation was incurred. Now they may be secured but a comparatively few miles from one's home.

If the grades and pure breeds are more profitable and larger returns are obtained from them, and the cost of keeping a pure bred is no greater than that of a mongrel, why not dispose of some of the scrub cattle and as a business proposition, invest the proceeds in a good pure bred bull? Then, having obtained this "half" of the herd, give the same painstaking and intelligent care in breeding that is exercised by the breeders of large herds, and it is possible for larger returns to be obtained than is by the large breeder, who has correspondingly large expense. The writer has had just such experience, and while knowing these abstract facts regarding breeding, was yet amazed to note the improvement in a very few years in a herd that was composed of selected common cows and bred to a pure bred bull. If a better grade of cattle is desired, don't conclude that to obtain such results a whole herd is necessary in the beginning. The farmer or stock raiser who develops a herd from a "half herd" or pure breeds is much more apt to give the care and attention that mark the necessary breeder.

ARKANSAS GEOGRAPHY AND TICKS.
Editor RURAL WORLD: Brother Trotter thinks that my knowledge of the geography of our state is very limited. I will have to "acknowledge the corn." I lived in Monroe County for three years; in 1850 I was a member of the Grand Jury, and one of the jury commissioners for that county; served two terms in the Legislature, and yet I did not know that a part of Monroe County was west of White River.

When I studied geography Roe was not on the map of the state, and as navigable streams ought to be boundary lines between counties, and as White River is navigable, I very naturally jumped at the conclusion that it was the western boundary of the county down there as it is farther north.

It is 33 miles from here by rail to where Mr. Trotter lives. There is no doubt but that his section is permanently infected with the Texas tick. This being so, Northern cattle, as he says, will die in a majority of instances, if introduced there. Our native cattle are just as susceptible to the disease as cattle from any of the Northern states. We had ample proof of this fact two years ago, when those Louisiana cattle that I wrote about were brought here. Those cattle wandered for miles, and wherever they went, our native cattle took the fever and died. There were 400 of the Southern cattle, their owner had 115 natives that he bought up in this county, and turned them on the range with the imported ones. Of the natives 108 died. Mr. John Decher had 300 head and lost six. He then got up his cattle and swabbed them with black oil, thus killing the ticks, and lost no more. I was at his place while he was doing this.

The young man who brought those cattle down here from Missouri last fall knew what he was about. He came here last summer, put him up a house, crib, etc.

If there had been any ticks here, he would not have been foolish enough to bring cattle here. I have previously written a "Talk" article two weeks ago and I have not seen one since.

Woodruff Co., Ark. WM. MANNING.

Calf Scours

Diarrhea, Cholera and Indigestion are cured by Hood Farm Calf Scour Cure and Hood Farm Digestive Powder. Over 75 per cent cases treated have been cured.

I have not lost a calf that was treated with Hood Farm Calf Scour Cure. D. B. Dorr, Cashier First National Bank, New Kensington, Pa., Sept. 26, 1900.

\$1 and \$2.50. By express \$1.25 and \$2.75.

Large is four dollars size. On orders of \$10, we prepay express.

Hood Farm Milk Fever Cure may be safely given after cow is unconscous. \$2.50. By express \$1.25 and \$2.75.

Exxon Wood Jersey bull calves and Berkshire sows generally for sale. Correspondence solicited. Mention this paper.

C. L. HOOD & CO., Lowell, Mass.

BREED INTELLIGENTLY.

At the recent meeting of the Improved Stock Breeders' Association, at Lincoln, Neb., Prof. Burnett of the experiment station, discussed the matter of maintaining the size and quality of breeding stock. Heavy breeds of cattle and horses come from regions of abundance of food. By forcing maturity in animals they become more blocky and low, and eventually the tendency to lay on flesh becomes perpetual. Some feeders work for bulk, while others devote more time to quality and type. If cattle feeders continue to buy their stock from the range, they should plan to secure them before they are ruined by inadequate feed and treatment.

Young cattle can be fattened more easily than those which are older and have not had an abundant supply of feed. Secure the best type of animals. Let the sire and dam be about equal in size and quality. Hereford cattle have very superior qualities, but their bad character will be ruined in attempting to develop their milk qualities. The man who thinks Hereford milk unexcelled must have indeed limited experience. If a cow two years old does not show good quality in her particular line, send her to the slaughter house. At this age she is virtually all she ever will be. Do not try to produce a calf when a heifer is two years old. Allow her another six months at least.

A cow of good average maturity weighs 1,200 to 1,600 pounds, and the bull from 1,800 to 2,000 pounds. Show yard cattle are not desirable upon the farm. They are too heavy. The ideal market cattle are those of good quality which, under ordinary care mature at about the age of two years and weigh from 1,400 to 1,600 pounds. In the discussion which followed this paper it was brought out that show yard cattle were the greatest detriment to the cattlemen of the state. In the endeavor to improve an animal to the highest point of excellence in some one line, the utility of the animal is sacrificed. Conditions arouse jealousy, and the really valuable and serviceable animals are neglected. A new standard of judgment should be adopted by fair managers.

GUARDING CATTLE IMPORTATION.

Washington, April 7.—As a result of negotiations between Secretary of Agriculture Wilson and the Canadian Minister of Agriculture, an agreement has been reached between the two administrations by which Canada is to have a first-class veterinarian stationed in England to test for tuberculosis all British cattle shipped to this country via Canada. The Canadian administration wanted cattle to be admitted from Canada without test, at the border by American exports. The department at Washington would not agree to this. Secretary Wilson said, however, that if Canada would send to England an agent who should have sufficient expert knowledge of the subject the United States would admit cattle upon his certificate that the cattle had been tested and found free of tuberculosis. This was agreed to by the Canadian Minister.

It is officially explained that about 10 per cent of live stock in the United States and about 46 per cent in Great Britain have tuberculosis. The cattle on the continent of Europe are so diseased that this government will not permit the admission of any animals from there.

THE TRANSATLANTIC CATTLE TRADE.

The United States and Canada now have a virtual monopoly of the world's export cattle trade to the United Kingdom. All other important cattle exporting countries which were formerly shippers to this market have been precluded by the British laws for the prevention of foot-and-mouth disease from landing their cattle on British soil. Argentine, after having carried on a successful and increasing trade with Great Britain since 1890, was last April declared to be infected with the disease and her flourishing trade has ceased. Australia, though non-infected, has not yet succeeded in establishing a cattle trade to the United Kingdom; her several tentative experiments in transporting live stock on a commercial scale over the vast distances and through the diversities of climate that separate her from the mother country have, as business ventures, ended in failure. Against various countries of continental Europe declarations of the existence of foot-and-mouth disease have been made from time to time during the last quarter century, and since 1892 exports of cattle to the United Kingdom from that entire continent have almost ceased.

Even the thriving export trade of the non-infected United States and Canada has been carried on under other restrictions that would at one time have been regarded as almost prohibitive. In the year 1879 the existence of pleuro-pneumonia in the United States caused the British government to prohibit the landing of cattle from this country except for slaughter within ten days at the port of landing, and, although this republic was officially declared to be free from the disease in 1892, the restrictions were never removed. Canadian cattle were placed under the same restraints and for the same cause in 1892. A little later these restrictions were made permanent and of universal application, and since January 1, 1897, no cattle from any country whatsoever are allowed admission commercially into the United Kingdom, if allowed at all, except for slaughter within ten days at the port of landing.

During the past ten years the importation of live cattle into the United Kingdom, notwithstanding the rigorous restrictions under which the trade has been carried on, has greatly surpassed previous records, and has averaged over \$60,000 head annually. Imports from Argentina first became of sufficient importance to be stated separately in the British port receipts in 1894, and since that date the total receipts of foreign cattle in the United Kingdom from the three almost exclusive sources of supply have been as follows:

IMPORTS OF CATTLE INTO THE UNITED KINGDOM.

From the From. From Ar-
Year ended U. S. Argentina, S. America, etc.
Dec. 31. No. No. No.
1894..... 361,362 82,323 9,558
..... 276,533 96,993 39,494
..... 415,229 126,495 72,923
1895..... 321,228 94,680 38,582
1900..... 350,200 104,328 38,582
1896..... 361,119 101,591 65,692

STOCK NOTES.

J. P. VISSERING'S farm at Melville, Ill., has long been the center of attraction for lovers of fine bred cattle. This reputation has been established by breeding registered Aberdeen Angus cattle of individual merit and most fashionable strains. A draft of twenty bulls is yet

offered from this farm. See advertisement elsewhere.

THE BOONE COUNTY, MO., sale of Shorthorns will be attended by those who are looking for useful cattle at reasonable prices.

At Columbia, Mo., on April 18, a well bred lot of cattle will be sold, and this will be an excellent chance to get a bull or cow as a means of improving one's herd, or as the basis of a new herd. Send to Mr. John Burruss, Columbia, Mo., for a catalog and don't forget the date, April 18.

EVANS-SPIDER-BUEL CO. sold on April 4 for R. H. Brown, Calvert, Tex., one car 1,250-lb. fed Texas steers at \$3.20, which is the highest price obtained on this market during the season; also, seven cars 1,150-lb. steers at \$4.50. These cattle were good quality and well fattened Texas steers, and speak well for Mr. Brown as a feeder. They also sold in the native division for the Illinois Central Stock Co., St. Johns, Ill., one load black Polled Angus steers, which were of good quality, but were not finished; they averaged 1,331 lbs. and brought \$4.50.

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Hereford cattle have very superior qualities, but their bad character will be ruined in attempting to develop their milk qualities. The man who thinks Hereford milk unexcelled must have indeed limited experience.

If a cow two years old does not show good

quality in her particular line, send her to the slaughter house. At this age she is virtually all she ever will be.

Do not try to produce a calf when a heifer is two years old. Allow her another six months at least.

A cow of good average maturity weighs 1,200 to 1,600 pounds, and the bull from 1,800 to 2,000 pounds. Show yard cattle are not desirable upon the farm. They are too heavy.

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quality in her particular line, send her to the slaughter house. At this age she is virtually all she ever will be.

Horseman.

SOUTHWEST MISSOURI CIRCUIT.

Eight Continuous Weeks.

Quincy, Ill.....	July 23-26
Columbia	July 20th-Aug. 2
Holden	Aug. 6-9
Marrisonville	Aug. 13-16
Rich Hill	Aug. 20-23
Nevada	Aug. 27-30
Higginville	Sept. 3-6
Bedalia, State Fair.....	Sept. 9-14

Oscar Spaulding of Clinton, Iowa, has a black mare, twenty-nine years old, by Swigert, that to the cover of Sir Hildebrand, son of Norval and Gladys, by Onward, dropped a filly the spring of 1899; also one in 1900 by the same horse and was again bred to him.

The Centralia, Mo., Fair Association has been reorganized and at a meeting of the stockholders the following named officers were elected for the ensuing year: H. C. Threlkeld, president; T. O. Robinson, vice-president; O. B. Wilson, second vice-president; J. K. Pool, secretary; C. H. Early, treasurer.

The next regular meeting of the Board of Appeals of the American Trotting Association will be held at the Auditorium Hotel, Chicago, Tuesday, May 7, 1901, at 10 o'clock a. m., for the transaction of such business as may properly be presented to the board for its consideration.

All new applications and written evidences must be received at the office not later than April 20, 1901.

A slight idea of the magnitude of the traffic in horses and mules can be had when it is stated that 90,000 head of American mules and horses have been secured to aid in the fight against the Boers. The British have expended in this country about \$15,000,000, and that amount does not take into consideration the ocean freights, the hire of the transports and the muleteer business, which has given employment to thousands of young Americans.

In the big horse markets the trotting bred coach and driving horse has led the procession during the past few weeks so far as price is concerned, says the "Horse World." It was not so long ago that a certain class of agricultural papers always referred to the trotting bred horse as "the scrubby little trotter," but nowadays those same papers are forced to admit that the leading horse in the big markets is the one produced by trotting blood.

Fort Worth, Tex., April 7.—Mules and horses are still being shipped from here by agents of the British Government to the Transvaal country, despite the efforts of the Boers. Frank Anson will ship 750 horses to New Orleans this week. Eight hundred head were shipped last week. Charles Hicks also shipped out 600 horses and will consign 300 more this week. The British Government has paid out several million dollars to Texas people for horses and mules for use in the South African war.

Sufficient food should be provided in sufficient quantities to give the horse a ration at least once a week. Carrots are a favorite food for horses, as they tone the digestion and improve the appearance of coat. Horses will soon learn to eat potatoes, sugar beets, cabbage and rutabagas. If roots cannot be obtained, ensilage will be found a good substitute, especially if made from clover, or soy beans, to balance the winter rations. If roots or ensilage cannot be obtained, then a good bran mash should be substituted once a week.

The eleventh annual meeting of the American Saddle Horse Breeders' Association was held at Louisville, Ky., April 5. An important measure was adopted, which will cause numerous horses to be dropped from the register book. The blood lines of the foundation horses will be investigated and a correct tabulated pedigree and history of them will be prepared and published in volume 4 of the Register. Two horses, Brinker's Drennon and Sam Booker, were ordered removed from the list, leaving their sires and given numbers in the Register.

Steps were taken looking toward an exhibit of saddle horses at the International Stock Exposition, to be held at Chicago in December. Officers were elected as follows: President, John B. Castileman; first vice-president, W. A. Gaines; second vice-president, Dr. S. Maddox, Sly Mo.; treasurer, Attila Cox; secretary, I. B. Nall.

To destroy lice, says the "Horseman," make a decoction of stavesacre seed, using four ounces to the quart of boiling water. Get enough of this and after washing the colt apply this to his hide. Or you may use a lotion composed of carbolic acid two ounces, water one gallon. Of course, you cannot apply this sort of treatment to the colt in cold or stormy weather. Either one of these lotions will destroy the lice, but we prefer the one of the stavesacre seeds over the other. See to it that the colt is not put back in a stall that is infested with lice, after he has been washed. If the stall in which he is kept is infested also by chickens or if it is close to the chicken house, you may expect trouble right along.

Henry Caswell, the driver of the mail stage between Bingham and Abbot, has a mule, "Pete," which is the propelling power.

er of said stage. After the big storm, when the mails had been delayed for a week, the Bingham residents were surprised to see Mr. Caswell and Pete appear one evening on snow shoes, each carrying pouches of mail. Pete seemed to take kindly to the snow shoes, and started on the return trip with good courage. Mr. Caswell said that the knowing animal only stepped on his shoes twice during the whole 24 miles. A Sidney farmer successfully put his horse on snow shoes during this same storm. Who can say but what the animals enjoy snow shoeing? Some one should try them with "skees."

At the recent meeting of the Texas Live Stock Association, says the "National Stockman and Farmer," the statement was made that there are now 3,000,000 fewer horses in the United States than there were ten years ago, that there are a million more in active use than in 1899, and that there is a better demand for our horses from abroad than for many years if ever before. It was brought out in the discussion that we could not by any reasonable measures restore our numbers in less than six years, and that in the meantime we would have great difficulty in supplying our foreign customers, if indeed we were sufficiently equipped to hold their trade. It was agreed that the outlook just now for the industry of horse breeding is especially promising.

The Tennessee breeders of pacers have been experimenting quite a bit in the line of crossing trotting bred pacing stallions on their pacing bred mares, says the "Horse World," evidently with considerable satisfaction, for they have arranged to have the stallion Directly, 2:03%, by Direct, 2:05%, stand in their state this year. The trotting blood used heretofore on the Tennessee pacing mares has been principally through the stallions McEwan, 2:18%, by McCurdy's Hambletonian; Tennessee Wilkes, by George Wilkes; and Mercury, by Sidney. Some fast pacers have resulted from the mating of pacing bred mares with these stallions, and in a few instances fast trotters have been produced by the same crosses. Directly, while trotting bred, was a wonderfully fast natural pacer, as was his sire, and on the mares of the great Hail family, which there are so many in Tennessee, he should sire a lot of speed.

The Campbell-Reed sale of coach and show horses at the National Stock Yards ended Friday. The principal sales were: Fair sorrel horses, Tichenor & Co., Chicago, \$750; brown mare, Geo. Watson, London, England, \$600; bay gelding, Tichenor, Chicago, \$600; pair bay geldings, T. J. Drummond, St. Louis, \$300; black gelding, Alex. G. Cochran, St. Louis, \$1,275; gray gelding, M. H. Tichenor & Co., Chicago, \$1,000; chestnut gelding, M. H. Tichenor & Co., Chicago, \$500; bay gelding, M. H. Tichenor & Co., Chicago, \$400; pair mares, gelding, G. S. Watt, Decatur, Ill., \$400; chestnut gelding, G. Watson, London, \$600; pair brown geldings, C. Mason, Boston, \$600; pair brown geldings, P. Stercher, Attica, N. Y., \$600; brown gelding, Al Waggoner, St. Louis, \$500; bay gelding, D. C. Culhoun, Hot Springs, Ark., \$750; bay pacer, Geo. D. Bennett, Richmond, Va., \$500; bay mare, Geo. Watson, London, England, \$600.

When an honest man spends weeks and months in developing a green prospect, it is rather tough to be beaten by a "ringer." It is a good plan to protest any strange horse under suspicion. If the nag is all right, an honest turfie will take pleasure in producing facts. No driver should go into a strange territory to campaign without the proof in his pocket. It is always best to leave doubtful proof to either the National or the American Trotting Associations to pass upon. The majority of the "ringing trips" occur over the half-mile courses, where the few rogues think they will pass inspection. It is for this reason that all half-mile track secretaries should be on the alert from the date of closing of entries until the end of the meeting. One "ringer" does more harm to an association than can be calculated at the time, for, if you once lose the confidence of the public, who pay their money at the gate, you might as well put up real estate signs "for sale."

When Highwood was sold at the Chicago sale the first week in February, says the "Horse Review," the bidding was not what was expected, and Mr. D. W. Brennenman got him for \$4,100. There was one on the ground who had left home prepared to bid \$10,000, if necessary, in order to possess him—and when the sale day came he never even made a bid. This was carried off by a circumstance that also kept several other breeders from bidding. Highwood came into the ring looking hardly—so badly, for a horse but fourteen years old, so out of order and prematurely aged, that the impression prevailed that "something was the matter with him"—especially as all the other horses in the Caton consignment looked very well. So the bidding was slow and Mr. Brennenman, who was there to buy, got the undoubted greatest son of Nutwood for about a third of his value. The improvement in the horse has been something wonderful. He has taken on flesh until he is plump and sleek, his eye is keen, his spirits high and his general appearance denotes robust health and vigor. Mr. Brennenman has already booked forty mares to him at \$50 each, and is feeling like the man who has made the bargain of a lifetime—which is just about what he did!

The appointment by the President of Philander C. Knox of Pittsburg to the office of Attorney General places in a high place officially another enthusiastic lover of the light-harness horse, says the Kentucky "Stock Farm." To horsemen generally the new cabinet officer has been most widely known as an amateur reinman, and as the owner of the now famous team, Dr. Leek and Wert, that driven by their owner, trotted a trial over the Brunot Island track last summer in 2:10%. The trotter has been closely identified with official life for many years, and many distinguished public men have been as widely known as horsemen as by reason of their official capacity. Nor is this the only instance of a cabinet officer being a prominent horseman, as President Harrison's Secretary of the Navy was General Francis M. Tracy, who is one of the most extensive breeders of the light-harness horse in America. The Senate and House of Representatives have each been the debating ground of many men noted as enthusiastic admirers of the trotter. Senators Stanford and Stockbridge, each remarkably successful as breeders, the

former having been the most so of any man in the world, frequently discussed the science of breeding in their committee rooms, and Congressman Sibley and Senator Bailey each have had extensive breeding establishments in Kentucky.

L. E. CLEMENT'S HORSE GOSSIP.

EDITOR RURAL WORLD: L. L. Dorsey of Anchorage, Ky., has sold to W. A. Cottingham of Kansas City a two-year-old called Golden Morgan, by Ruskin, son of Ben Franklin. Mr. Dorsey is using in the stud Bongard 34260, by Ben Franklin, sire of 32 trotters and 3 pacers at the close of 1899. This horse, although he comes of the hardest of all our trotting families to handle, should be an improvement on Goldust as a sire of harness speed. Goldust had too many of the characteristics of the running-bred side of his ancestry to beget the best race horse speed and quality. Mr. Dorsey should succeed in breeding some extra good saddle horses and some roadsters.

Some one has asked about half thoroughbreds as farm horses. Forty years ago all of our common horses had more or less thoroughbred blood, and were better for the market and for general use than they have been since we began to import and use the foreign draft horse. I have never seen a horse team that was suitable to be placed in the hands of all kinds of farm help. The farm horse of forty years ago in careful hands was a much better farm horse than the average farm horse of to-day.

If a man does his own work and handles his own team on the farm, there is nothing that will do his work in as good shape with as much profit to the farm as three well selected standard bred trotting mares, two of them bred in the spring and one in October. If the farm work is so arranged that it may be done without using the breeding stock and must be done by hired help, no motive power has yet been found equal to the Missouri mule. Ranchmen in the west have found it profitable to raise colts from draft stallions turned loose on the range with the mares. This way of breeding with standard bred harness or saddle horses, or thoroughbreds, is out of the question, as when taken up at four or five years of age, to gentle for market, the horse in many cases will resist to the death before he will submit to being subjected to harness or saddle uses.

The American harness horse of to-day is a descendant of the pacer of the last century, improved in conformation by the addition of thoroughbred blood, at the expense of years of added time unnecessary for the development of trotting speed, yet more or less compensated for by the added style obtained.

The Morgan horse is inclined to take too strong a hold on the bit on the road to make pleasant driving, and yet I have never known any other class of horses in any kind of a hitch that would cover distance with them. I know of no family of horses that requires so little education to make them quiet workers as the Blue Bells. All I have ever had handled seemed ready to work right off as soon as harnessed. Of our trotting families the Daniel Lamberts and Volunteers are undoubtedly the hardest to successfully handle on account of their high spirit.

I was surprised during the last week to receive a letter from J. M. Cline, son of John Cline, founder of the Alta Plana Stock Farm at Oakwood, Mo. Mr. Cline says his father is enjoying good health. I had been told the Clines had left the state, and my informant did not know where they were. Mr. Cline says he has just been after El Captain, 2:30%, sire of two trotters and four pacers, and brought him back to Missouri. El Captain was sired by Alcantara, dam by Piedmont, son of Almont, second dam by Hambletonian. Alta Plana started with a Tuckaway horse and Dresden, by Administrator, Dresden sired one pacer and one producing daughter. Cashman, by Almont, I think is the only horse kept at Alta Plana that has left no standard representatives. Midas 2663 sired five trotters and leaves one son a sire. I for one am glad to see El Captain back in his Missouri home, for I do not stand in as much fear of a pacing sire as Hawley of the Kentucky Stock Farm and General R. F. Tracy.

Columbus, in the "Western Horseman," gives a pointer on a good Kansas bred gelding by Integrity, 2:28%, by Capoul. I find that he made his first start June 21, 2:27 class, at Topeka, Kan., for a purse of \$300, and won the first heat in 2:27 1/2, 2:25%. August 10th, at McKeever Rocks, Penn., in 2:25 class, purse \$400, he again started and won his record of 2:24% in the third heat. August 30, same year, at Youngstown, Ohio, 2:26 class, purse \$400, he won second, fourth and sixth heats, and the race.

I hope the New Year Book has given Integrity credit for Wilber, 2:21%, as Columbus states that he now has a wagon record of 2:16%. Integrity is at Galena, Kan., in 1901, and a right good representative of the strong but not fashionable trotting blood from Sterling, Ill.

The Year Book just out still leaves Hershon without a representative, although Mr. Focock won a good race with Mr. Kroh's good daughter of Hershon in standard time. The mare is to-day in shape to pace a good race and put a mark well within the list of 2:20 performers. Victor Ene does not appear among the list of sires. Vic Doon paced at Galena, Kan., in 2:24 last spring. Secretary Steiner wrote me and I went to Galena and saw the president, secretary and treasurer, but the book in which records of races were kept was not in evidence. The secretary thought the president had it, the president was sure the treasurer got it to settle with the race winners. No one took the trouble to report the race to Chicago, and Mr. Hall, Victor Ene and Hershon are all cheated by a bar valueless, but a hindrance to winning in slower classes than 2:25 it is a record. Have association managers any business to be so lax?

The appointment by the President of Philander C. Knox of Pittsburg to the office of Attorney General places in a high place officially another enthusiastic lover of the light-harness horse, says the Kentucky "Stock Farm." To horsemen generally the new cabinet officer has been most widely known as an amateur reinman, and as the owner of the now famous team, Dr. Leek and Wert, that driven by their owner, trotted a trial over the Brunot Island track last summer in 2:10%.

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former having been the most so of any man in the world, frequently discussed the science of breeding in their committee rooms, and Congressman Sibley and Senator Bailey each have had extensive breeding establishments in Kentucky.

TIME TO RETURN A MARE.

An inquiry of interest is thus submitted by T. E.:

"The breeding season is at hand and there is great interest awakening here in horse and mule raising. I stand a stallion and jack and would like to get information on the proper time to return a mare to the stallion after she has been served. I am sure an article on this subject would be of great benefit to many of your readers."

Most men who own mares and most men who handle stallions are greatly in need of sound information on this very subject, says "Breeder's Gazette." As a very general rule the mare owner is anxious to find that his mare has safely settled in foal so that he may be sure of her having a colt and that he may not be bothered any more with taking her to the horse. On the other hand the stallion owner is just as anxious to get the mare with foal to his horse as that means so much more revenue. The net result is that mares are tried at seven, nine, ten, eleven, twelve, fourteen, seventeen and twenty-one days—not at each of these several periods, of course, but at periods marked by the lapse of so many days.

The most general rule is to try mares on the tenth to the fourteenth day after covering. This is all wrong. Naturally a mare will come in use about every three weeks. In the extremely hot weather we have in the Middle West and among corn-feeding farmers the periods of estrus in mares often extend very much longer than they do in colder countries, and where cooler foods are more largely fed. When a mare therefore continues long in use, as she does here, she may be tried and be bred again in one heat, while if she had been let alone and permitted to go till the twenty-first day she would have been found to have settled all right.

As it is, she is bred again and the consequent constitutional disturbance may cause her to cast what has gained place in her uterus and then keep coming back all season long.

The best and most successful stallion handlers in all countries insist that a mare should not be returned to be tried by the horse oftener than every three weeks. To submit her to the teasing of the horse oftener merely encourages her to form bad habits and to keep perpetually in use. But the stallion man who is thoroughly up to date in all his methods rarely now is much bothered with mares coming back often to his horse. He calls in the aid of science to help him and so settles the mares regularly and many of them to the first leap.

HOW TO DRIVE.

It is somewhat remarkable how few amateur reinmen pay any attention to form in driving, and it is not an uncommon thing, both on the track and road, to see men who are more or less experienced in driving in a hunched form, and often little or no assistance to their horses, says Hawley in the "Stock Farm." In the ranks of the professionals all are not skillful reinmen, and one is constantly struck with this during the trotting season. Last autumn, at Lexington, at the finish of a heat that was very close, three drivers, when nearing the wire, let go completely their horses' heads and pounded them on the back with the reins; it is needless to add that two of the contesting trotters left their feet and went into a run. How different from these are the methods of McHenry and Geers, or for that matter, those of all first-class drivers. The steady hand that is so much needed when a tired horse has another racing beside him when the delicate touch of hand means so much, wins many a heat, and yet men, both those that earn their livelihood by driving and those that practice it merely for pastime, drive if their horses could be pushed by the reins.

The most awkward style of driving and one that would seem to have the effect of driving a horse off of his stride was adopted by the late John A. Goldsmith, and which was practiced by John Dickerson before his service with Budd. Double, and yet each made some famous finishes while using this style, and Goldsmith was rated as second to none as a driver. Dickerson has, however, improved tenfold since he lowered his hands and kept his reins together.

Another method is to hold one elbow on a level with the head and give the appearance of sighting along the rein. The late Robert Bonner was not only an expert reinman, but drove in good form; his hand was light, yet he steered his horse to perfection. H. K. Devereux, not only the best amateur reinman in America, but the peer of almost any professional, drives in excellent form. If some of the drivers and roadsters could see themselves when making a drive they would be as amused as are the spectators, as in many instances they give the appearance of a monkey with their shoulders humped up and their arms akimbo.

It is somewhat remarkable that men so particular as to appointment, even detail of which is gone into should drive in such a manner as to cause comment by its appearance and to be the cause of losing many a brush on the road. Men are taught to drive four-hands or in a pair and while the heavy harness horse is for purposes of display and not for speed, the fact remains that one must be taught to drive one kind of an equipage as well as another. There is a right and wrong way of doing everything, driving as well as riding, and the right way always looks the best, even if it applies to driving a close finish. The best reinmen in America, both professional and amateur, drive in the best form.

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CURED TWO BONE SPAVINS OF TEN YEARS' STANDING.

DR. B. J. KENDALL CO., Enoeburg Falls, Vt. "Gentlemen: Some are asking for a horse that has two bone spavins, and it removed them entirely. These spavins had been on him from birth, and were of ten years' standing; now he is in case of ten years' standing; now he is in case of ten years' standing; now he is in case of ten years' standing

Home Circle.

Written for the RURAL WORLD:
A COUNTRY WOODPILE.

It was a rough, unshapely pile,
Where shattered trees were thrown
awhile,
Until the ax, with sure, swift aim,
Prepared them for the hearthstone's
flame.

The farm boy viewed that spot with
dread;

The trap went by with quicker tread;

The neighboring farmers sat thereon

Discussing crops both pro and con!

In it the brown hen hid her nest;

The winds new in and out with seat,

Although the cat, serene and sly,

Lay dozing on a log near by.

Piled there were oaks, on whose rough
barks

Lichens made hieroglyphic marks.

(Those signs which nature keeps to show
The season's records as they go).

Cast there was many a splintered form
Of fruit tree, wrecked by wind and
storm.

No more to woo the bees to drink
From fragrant cups of white or pink.

There lay the peach, mournful wreck,
Which spring no more with bloom should
deck,

Nor summer, as her days went by,
Clasp its red girdle of July.

The apple, cherry, plum and pear
Alike lay grim and leafless there;

No more to flash o'er robes of green
Ripe fruits or blossoms' jewel sheen!

Oh, woodpile! vanished long ago,
On men's hearts your embers glow,

Where oft your ghostly forms, I ken,

Have flamed with flowers, or fire, again!

ADELA S. CODY.

Written for the RURAL WORLD.

FROM SUNNY SLOPE FARM.

I do not expect to farm alone the coming year; when the gude mon tears himself away from us, he will leave somebody bigger and braver than I am to wrestle with the plows and the other farm implements. The cow and the poultry will be my care and the fruit garden, "experiment" plat and the truck patch will faithfully fill up every moment of my time. Although in better general health than for many years, I find I am but an old lady at best, and that I do not recuperate very readily from an overdose of hard work.

Some of my correspondents laughingly ask me to give an account of my income since coming to the farm. These are city friends who have exaggerated ideas of the "overworked farm wife" whose family lives on "hog and hominy" and dresses entirely in patches and tatters. As to the income, one is hardly expected to have such a thing the first year, or even years.

In a financial sense it has been mostly outcome, but the outcome has been judiciously placed and the "train" well laid. But we have made an excellent living. Our table has been supplied bountifully ever since our "garden came in" last summer and there has not been one meal at which there has not been "a plenty and some to spare." A farm family and the farm animals are a socialistic community—each works for the good of the other; all share in both the work and the wage.

Our cribs were sufficiently filled with wheat, oats, corn; our cellar with vegetables, fruits of all descriptions, canned and otherwise preserved; there has never been an hour since last July that we did not have a pan full of the nicest "big red apples" sitting about to tempt our appetites, while the nicest of fresh fruits and a big pitcher of sweet, thick cream were served with every meal so long as anything ripened outdoors. We have had our own meat and lard and butter; eggs without counting and plenty of nice fat chickens to round out the family dinner. If we failed to live well, it was because the cook was helping the gude mon in the field.

Our stock has never gone hungry or asked for an extra morsel that it did not get; fodder, clover hay, sheep oats, cow peas, millet and timothy filled the barn to overflowing and there is still a plenty to last until crops come again. We have collected a good "start" of horses, cattle, sheep, hogs, chickens, ducks, turkeys and geese, and everything on the place considers us its best friend. The gude mon has made much new fence, opened up quite a lot of new ground, repaired and rearranged many of the buildings, bought new farm tools and in many ways made our little home much more comfortable than we found it. Yet there is much still to do, as time and means present themselves; much, too, that only time can bring about, coupled with intelligent industry and careful planning.

Another thing which we greatly appreciate is our limitless supply of fuel. We need never sit or sleep in a cold room, although our house, in its present condition, is anything but "warm" in zero weather. Now these comforts must all be counted as "income." We, as well as our stock, have had a "good" living—better than could be bought in the city. Coupled with this is the improved general health of each member of the family and last, but by no means least, the delightful sense of security and the lack of worry as to where the next table supplies were to come from.

As to the "good clothes"—we have not found much time yet to need them, but we don't have to resort to the rag bag yet. When the leisure to "dress up" comes, there will be plenty of money in pocketbooks to meet the emergency. If not, there will be a surprise of something marketable to sell. We are our own employers and our wages are sure.

Our winter has been so "open" that the gude mon and his assistants have been able to work almost every day, but Helen and I have had many leisure (indoor) hours, in which to sew or attend to housework. I have not been able to work as much as my son as I could wish, but I hope to be able to at least supply what I have promised to the press.

I have just been looking over some files of the RURAL WORLD and find that two winters ago, in this vicinity, the mercury marked 30 degrees below zero, and I am wondering how some of our people managed to keep alive in their open houses.

We are going to try very hard to have warmer quarters for everything by the next cold season.

HELEN WATTS MCVEY.

Wright Co., Mo.

MRS. W. A. WINSLOW's long with perfect success. It soothes the child, softens the gums, allays the toothache, cures the sore throat, and is the only remedy for "Mrs. Winslow's Soothing Syrup." Sold by Druggists in every part of the world. Be sure and get "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

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BUSY LIVES.

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I enjoyed Idyl's letters very much, but I am afraid that she has made the road to fame and fortune so easy that all of Mr. Chubbuck's flock will be a-straying off down the lane of literature and get choked in the dust. I am right here to tell you would-be authors that road is pretty dusty. I've swallowed more than a few "go right" even on a farm in the Ozarks. As the preacher says, "We have our trials, troubles and tribulations." For instance, when the old Chester White sow catches and kills a nice fat pullet, then one would like to be a man and say "words" at her, but can only condemn her to the fattening pen and a speedy death after. Do not judge all the farm homes by the description I have given of ours, for we speak, if we could turn the other end of the ladder down.

We have farmers of all the different grades financially. Along the creek and river bottoms and on some ridges are good farmers of many acres, with nice substantial frame buildings, and all comforts surrounding them.

I have the good beginning of a small town, with the usual stores, blacksmith shop, postoffice, etc., and a real good roller and sawmill, and will have a carding machine, too. It is conveniently close and is a great convenience to us that had to go from 15 to 25 miles to mill.

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Allen's Lung Balsam
FOR THAT COUGH

You will be pleased with the results. It contains no opium in any form, and as an expectorant it has no equal.

Mother will find it a pleasant and safe remedy to give their children for whooping cough and croup. At druggists, 25c, 50c and \$1.00 a bottle.

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Cut-Cut-Ca-Da-Cut
that you own one more egg. If your Poultry yard is fenced with Page Poultry Fence you don't have to go all over the farm to "hant eggs." PAGE WOVEN WIRE FENCE CO., ALEXANDRIA, MICH.

Is There Any Reason
why you should pay the dealer a large profit for selling you
ADVANCE FENCE
direct from our factory at
A. C. H. FENCE CO., 116 Old St., Berk.
Body interview—no need to get less and give stock or services. Many before. Order now.

ADVANCE FENCE CO. 116 Old St., Berk., Ill.

No Smoke House. Smoke meat with KRAUSER'S LIQUID EXTRACT OF SMOKE. Made from hickory wood. Gives delicious flavor. Cheaper, cleaner than old way. Send for circular. E. Krauser & Sons, Miller, Pa.

SICK HOGS DON'T PAY. Keep your
Cure the Sick Ones 5 Cents Per Hog Per Year.
A postal will bring full
Particulars and book on the "CARE OF HOGS." Address
Moore's Co., Stock Yards, KANSAS CITY, MO.

NEVER HOG
HOG TART
Makes noses like cut. Only 10 cents per dozen. Max reversible (Y-shaped) steel knife held by thumb-screw, and self-adjusting 10 gauges to suit size of pig. P. O. Box 825 Lewiston, Mo.

Medium Soja Beans, \$2.00 per bu.
W. B. CAMPBELL, Rossmoor, Ill.

Choice Lot of Sept. and Oct. Gilts
to breed in May. A few males same age. Sold out
on other ages. S. G. Richards, Surgeon, Mo.

BERKSHIRES.

LARGE ENGLISH BERKSHIRES—\$5 buys
a pig of either sex, best of breeding.
P. F. H. Chickens: White Turkeys.
Geo. W. MCINTOSH, Monett, Mo.

POLAND-CHINAS.

POLAND Chinas—We have some extra fancy girls of 150 lbs. and some fancy pigs of both sexes, all colors and sizes. U. S. Techneum 2d. U. S. Perfects know. Prince Hadley and Marks' stock is not satisfactory. L. A. Spies Breeding Co., St. Jacob, Ill.

Walnut Valley Farm Herd
Poland China Swine. Black U. S. and Monett
pigs and Jersey Cattle for sale. Blackwater.
Eggs \$1.20 for 15. Ernest W. Wallen, Monett, Mo.

VIVION & ALEXANDER,
FULTON, MO.

Seeders of the best strains of Poland-China
and individual merits combined. H. L. ORGAN, Carroll, White, J. O., Ill.

DUROC-JERSEYS.

R. G. HILL Herd of Duroc Jersey
Hogs. Gilts ready to breed and
boars ready for service, for sale.
Prices reasonable. S. Y. Thornton,
Blackwater.

BIG 2 HERDS Duroc Jersey and Chester
White Hogs. Top individuals
available. Write for list.
J. E. HAYNES, Ames, Ill.

Duroc Jersey and Berkshire Hogs! Extra
breeding. Satisfaction guaranteed or you may return
at my expense. S. C. WAGNER, Paris, Ill.

50 DUBROCS ready to ship; boars all ages;
no gilts; all registered. N. B. LAWRENCE, Cherryvale, Kansas.

SHROPSHIRE RAMS.
all yearlings, for sale; also my stud
ram for sale or trade for one as good.
Address L. G. JONES, Towanda, Ill.

WETTING CURED. Sample FREE
Dr. F. H. May, St. Louis, Mo.

CHICHESTER'S ENGLISH
PENNYROYAL PILLS

SAFELY AND EASILY
CURED. Sample FREE
Dr. F. H. May, St. Louis, Mo.

Send for Catalogue and Price List.
O. K. HARRY STEEL WORKS,
No. 2235 Papin St., St. Louis, Mo.

PAN-AMERICAN EXPOSITION

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IS THE SHORTEST LINE
TO BUFFALO FROM

KANSAS CITY, ST. LOUIS, CHICAGO
AND INTERMEDIATE POINTS.

For Dispatches, Money, Express,
Ticket Agent, or address.

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IS THE SHORTEST LINE
TO BUFFALO FROM

KANSAS CITY, ST. LOUIS, CHICAGO
AND INTERMEDIATE POINTS.

For Dispatches, Money, Express,
Ticket Agent, or address.

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The Markets

WHEAT—Cash Market—By sample. No. 2 red sold this side at 75¢ to 75¢ 1/2c; later choice to fancy; No. 3 red at 70¢ to 72¢; No. 4 at 65¢ to 67¢; low grade at 65¢; No. 5 hard at 70¢ to 71¢ and choice No. 3 at 70¢.

CORN—Cash Market—No. 2 white at 4¢ each this side, and 4¢ 1/2c bulk, delivered to this side. On the curb at 4¢ on Levee, and 4¢ 1/2c on trk.

DAIRY—Cash Market—No. 2 sold at 26¢ to 28¢; later f. o. b. from elevator; No. 2 white 28¢ and No. 2 Northern 28¢; No. 3 white sold at 29¢; No. 4 white at 29¢ 1/2c.

BROOM CORN—Fair demand and steady. Quotable: No. 1 ton: Common at 40¢ to 45¢; No. 2 fair at 38¢; choice short green brush at 37¢.

POP CORN (on Cob)—Quote from No. 2 for mixed to 32¢ for white choice rice.

LIVE STOCK.

HORSES—The initial supply gave evidence of lighter offerings for the week, which is ordinarily the case following a period of such extraordinary activity as was last week. Receipts for the immediate auction were of moderate character, and the market was not as active as plain and unbroken kinds, and as a consequence the movement was slower and values were easier than the week before. This was particularly the case on the part of the market, which is mainly to include the British cavalry horses. These are very slow, with little or no active competition prevailing, and are 10¢ to 15¢ lower, according to quality.

LATER in the day the quality represented good drivers and select Boston and farm chunks, for which there was a strong and satisfactory demand, they selling close to the prices existing for the last several weeks.

Horse quotations:

Heavy draft—Common to good, 45¢ to 50¢; choice to extra, 50¢ to 55¢; fancy to choice, 55¢ to 60¢; good, 55¢ to 60¢; good to choice, 55¢ to 62¢. Coach horses and colts—Fair to good, 50¢ to 57¢; choice to extra, 55¢ to 62¢. Horses for the Southern, light drivers, and good, 45¢ to 50¢; choice to extra, 50¢ to 55¢. Southern drivers—Extra to 55¢.

Export chunks, 1,200 to 1,400 lbs.—Plain to good, 45¢ to 50¢; choice to extra, 50¢ to 55¢; good to extra, 55¢ to 60¢. Saddlers for Southern use—Fair to good, 45¢ to 50¢; choice to extra, 50¢ to 55¢; fancy gaited and New Year saddle horses, 50¢ to 55¢.

SHEEP—Receipts moderate, market 5¢ higher.

CORN CULTURE.

At the twenty-ninth annual meeting of the Kansas Board of Agriculture, Mr. J. C. Norton, of Allen county, in that state, presented a comprehensive and instructive paper on the "Treatment and Use of the Corn Plant." As an abundance of corn is annually one of the paramount requisites to a prosperous agricultural and live stock region, its treatment and use are naturally matters of importance. As Mr. Norton handles the subject it can scarcely fail of convincing readers of the efficacy of his methods. Condensed by Secretary F. D. Coburn, the article is as follows:

COTTON—Local spot quotations—Ordinary, 6 1/2¢; good ordinary, 6 1/2¢ to 7¢; low middling, 7 1/2¢; middling, 8 1/2¢; good middling, 9 1/2¢; middling fair, 9 1/2¢.

WOOL—Fair demand, steady, but no equitable advance, nor any great strength to values. Medium and coarse grades continue quiet, being relatively dearer than the fine ones. Prices were lower than last samples carried over from last year, and we are about beginning to take off a new clip.

MISSOURI and ILLINOIS—Medium, combining, 18¢ 1/2c; good, 19¢ 1/2c; fine, 20¢; good and very fine, 19¢ 1/2c; burly and clear mixed, 14¢ 1/2c; slight burly, 12¢ 1/2c; hard burly, 10¢ 1/2c; light fine, 14¢ 1/2c; heavy fine, 11¢ 1/2c; lamb, 12¢ 1/2c; Kansas dark and sandy, 13¢ 1/2c; fine medium, 12¢ 1/2c; light fine, 13¢ 1/2c; heavy fine, 10¢ 1/2c. TEXAS, Indian Territory, and OKLAHOMA—Medium, 12¢ 1/2c; fine, 13¢ 1/2c; good, 14¢ 1/2c; burly and clear, 12¢ 1/2c; fine, 13¢ 1/2c; heavy fine, 11¢ 1/2c; lamb, 12¢ 1/2c; Kansas dark and sandy, 13¢ 1/2c; fine medium, 12¢ 1/2c; light fine, 13¢ 1/2c; heavy fine, 10¢ 1/2c.

EGGS—Unchanged at 11¢. Market less active. Duck eggs lower at 14¢. Goose eggs lower at 30¢.

BUTTER—Steady. The more desirable grades, 16¢ to 17¢; medium, 15¢ to 16¢; seconds, 16¢ to 17¢. Roll—Choice, 12¢ 1/2c; good, 11¢ 1/2c; poor to fair, 8¢ 1/2c. Grease, 8¢ 1/2c. Dairy—Extra, 16¢ 1/2c; firm, 14¢ 1/2c; Ladie's—Extra, 14¢ 1/2c; firsts, 12¢ 1/2c. Store-packed—Choice, 12¢; poor to fair, 8¢ 1/2c. In a small way, 1¢ per pound or more is charged over the foregoing quotations.

LEATHER—Jobbing: Twins at 11¢; singles at 11¢; Young America at 13¢; New York at 12¢; Ilmberger at 12¢; 13¢; Swiss, 14¢ 1/2c; brief, 12¢ 1/2c.

LIVE STOCK—Porkers—Fair. Light weight, 6¢ 1/2c; heavy, 6¢ 1/2c; tons 5¢. Chickens—Hens 7¢; old roosters 4¢; staggy young roosters 5¢; broilers, 2 lbs. and under, 1¢; Ducks 9¢; Geese 6¢ 1/2c. Game birds—Ducks, 1¢; Geese 6¢ 1/2c. Spring chickens 6¢ 1/2c per dozen.

DRESSED POULTRY—Turkeys—Light hens 6¢ 1/2c; heavy and tons 5¢. Chickens—Hens 7¢; old roosters 4¢; staggy young roosters 5¢; broilers, 2 lbs. and under, 1¢; Ducks 9¢; Geese 6¢ 1/2c. Game birds—Ducks, 1¢; Geese 6¢ 1/2c. Full-drawn turkeys quotable 1¢ over undrawn. All poor stock including discolored, thin, scrawny, etc. nominal.

APLICED—Baldwin at 30¢ 1/2c; Baldwin at 30¢ 1/2c; for No. 1 and fair, 31¢ 1/2c; for No. 2 (damaged or off stock less); Roman beauty at 32¢ 1/2c; for No. 1; russet at 32¢ 1/2c; fancy kings at 33¢ 1/2c; and spy glass at 34¢ 1/2c.

POTATOES—Northern stock on trk.: Wisconsin and Minnesota—Burbank at 30¢ 1/2c; common to fair, 30¢ 1/2c; for choice bright, trk. at 30¢ 1/2c; for choice bright, white mixed at 30¢ 1/2c; common to fair red mixed at 26¢ 1/2c. Michigan rural at 35¢ 1/2c; home-grown 30¢ 1/2c; according to quality, seed potatoes 6¢ 1/2c; old red 10¢ 1/2c; 12¢ 1/2c; 14¢ 1/2c; 16¢ 1/2c; triumph at 7¢ 1/2c for choice red; Red River early Ohio at 6¢ 1/2c; all bug-eaten, frosty, inferior and stock affected with dry rot less.

SEESWAX—Quote at 26¢ per lb. for prime.

SHEEP PELTS—Full-wool pelts at 50¢ to 60¢ according to amount of wool there on; lamb 17¢ 1/2c; Southern at 20¢ 1/2c; mutton at 40¢ 1/2c; dry stock, fallen, etc. 7¢ 1/2c per lb.

ROOTS—Ginseng at from \$3.50 for small to \$4 for large; lady slipper at 7¢; seneca root 20¢; pink 14¢; white 12¢; yellow 12¢; black 12¢; snake at 22¢; black at 2¢; angelica at 3¢ 1/2c; wahoo—bark of root sc., bark of tree 2¢; blood 2¢; blueflag 2¢; skull-cap leaves 2¢; sassafras bark 2¢; white 2¢.

STOCK PEAS—Whippoorwill quotable per bu. at from \$2.40 for fair to \$3.50 1/2c for prime. Other varieties nominal.

ONION TOP SETS—Latest sale at 2¢ per lb.; bottoms 3¢.

WORLD you rather buy lamp-chimneys, one a week the year round, or one that lasts till some accident breaks it?

Tough glass, Macbeth's "pearl top" or "pearl glass," almost never break from heat, not one in a hundred.

Where can you get it? and what does it cost?

Your dealer knows where and how much. It costs more than common glass, and may be, he thinks tough glass isn't good for his business.

Our "Index" describes all lamps and their right kinds of chimney for any lamp. We mail it FREE to any one who writes for it.

Address MACBETH, Pittsburgh, Pa.

CASTOR BEANS—Bid 11¢ per bushel for prime in car-lots; smaller lots and inferior, 10¢ per bushel.

DRIED FRUIT—Quote: Apples—Evaporated—Rings at 3¢ 1/2c; quarters at 3¢ 1/2c; to 4¢; chops at 4¢ 1/2c; peeled at 4¢. Sun-dried—Quarters at 3¢ 1/2c; for 10¢; dried at 3¢ 1/2c. Peaches—Fancy evaporated unpeeled halves at 4¢, and sun-dried at 4¢ 1/2c per lb.

WHITE BEANS—Hand-picked, pease beans at 12¢ per bushel; screened at 11¢ 1/2c per bushel. Country at 11¢ 1/2c. Lima beans at 11¢ 1/2c per lb.

HONEY—Cone at 5¢ to 12¢; 1/2c fancy, with clover 15¢ 1/2c; inferior, dark and broken beans.

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